

AMENDMENTS TO THE CLAIMS

1. **(currently amended)** A method for controlling inhibiting angiogenesis in an organism, said method comprising:

administering to said organism a therapeutically effective amount of a compound which binds to a galectin, said compound comprising a polymeric backbone which is a partially demethoxylated polygalacturonic acid interrupted with rhamnose residues having a molecular weight of up to 200 kDa.
2. **(original)** The method of claim 1, wherein said galectin is present on the cell surface of a tissue of said organism.
3. **(original)** The method of claim 1, wherein said compound binds to galectin-1 or galectin-3.
4. **(original)** The method of claim 1, wherein said compound comprises a substantially demethoxylated polygalacturonic acid which is interrupted with rhamnose residues.
5. **(original)** The method of claim 1, wherein said compound comprises a side chain dependent from said backbone, said side chains comprising one or more sugars and being terminated by a galactose or arabinose unit.
6. **(original)** The method of claim 1, wherein said compound comprises a modified pectin.
7. **(original)** The method of claim 6, wherein said modified pectin comprises a pH modified pectin.
8. **(original)** The method of claim 6, wherein said modified pectin comprises an enzymatically modified pectin.

9. (original) The method of claim 6, wherein said modified pectin comprises a thermally modified pectin.
10. (original) The method of claim 6, wherein said modified pectin comprises a modified citrus pectin.
11. (Currently amended) The method of claim 61, wherein said compound comprises modified pectin ~~has~~ having a molecular weight in the range of + 3-150 kilodalton.
12. (original) The method of claim 1, wherein administering said compound to said organism comprises injecting said compound into said organism.
13. (original) The method of claim 1, wherein administering said compound to said organism comprises topically applying said compound to said organism.
14. (original) The method of claim 1, wherein administering said compound to said organism comprises administering said compound transdermally.
15. (original) The method of claim 1, wherein administering said compound to said organism comprises orally administering said compound.
16. (original) The method of claim 1, wherein administering said compound to said organism comprises administering said compound by inhalation.
17. (currently amended) A method for the therapeutic treatment of a disease condition in an animal, the progress of which disease condition is dependent upon neovascularization in the tissues of said animal, said method comprising:

administering to said animal a therapeutically effective amount of a compound which binds to a galectin, said compound comprising a polymeric backbone which is a partially demethoxylated polygalacturonic acid interrupted with rhamnose residues having a molecular weight of up

to 200 kDa; whereby said compound decreases the rate of angiogenesis and neovascularization in said tissues.

18. (original) The method of claim 17, wherein said compound binds to galectin-1 or galectin-3.
19. (original) The method of claim 17, wherein said compound comprises a substantially demethoxylated polygalacturonic acid which is interrupted with rhamnose residues.
20. (original) The method of claim 17, wherein said compound comprises a polymeric backbone having side chains dependent therefrom, said side chains being terminated by a galactose or arabinose unit.
21. (original) The method of claim 17, wherein said compound comprises a modified pectin.
22. (new) The method of claim 17, wherein said compound comprises modified pectin having a molecular weight in the range of 3-150 kilodalton.
23. (new) The method of claim 17, wherein the disease condition is selected from: angiogenesis-dependent tumors; tumor metastases; inflammatory disorders; chronic articular rheumatism; osteoarthritis; psoriasis and associated scleroderma; infections causing angiogenesis; ocular angiogenic diseases; telangiectasia; Osler-Webber-Rendu Syndrome (hemorrhagic telangiectasia); myocardial or ischemic limb angiogenesis; diseases of excessive or abnormal stimulation of endothelial cells; hemophiliac joints; rubeosis; diabetic neovascularization, retinopathy, fractures, vasculogenesis, and hematopoiesis; restenosis; plaque neovascularization and capillary proliferation in atherosclerotic plaques and osteoporosis.

24. (new) The method of claim 23, wherein the disease condition is an angiogenesis-dependent tumor selected from: solid tumors, blood borne tumors, and benign tumors.
25. (new) The method of claim 24, wherein the disease condition is a solid tumor selected from: rhabdomyosarcomas, retinoblastoma, Ewing sarcoma, neuroblastoma, osteosarcoma, lung cancer, pancreatic cancer, breast cancer, colon cancer, laryngeal cancer, and ovarian cancer.
26. (new) The method of claim 24, wherein the disease condition is a blood-borne tumor selected from: leukemias and any of various acute or chronic neoplastic diseases of the bone marrow in which unrestrained proliferation of white blood cells occurs.
27. (new) The method of claim 24, wherein the disease condition is a benign tumor selected from: hemangiomas, acoustic neuromas, neurofibromas, trachomas, angiofibroma, and pyogenic granulomas.
28. (new) The method of claim 23, wherein the disease condition is an ocular angiogenic disease selected from: age-related macular degeneration, diabetic retinopathy, retinopathy of prematurity (retrolental fibroplasias), neovascular glaucoma, Mooren's ulcer, Terrien's marginal degeneration, marginal keratolysis, Stevens-Johnson disease, vitamin A deficiency, epidemic keratoconjunctivitis, atopic keratitis, superior limbic keratitis, pterygium keratitis sicca, acne rosacea, phlyctenulosis, lipid degeneration, chemical burns, Kaposi's sarcoma, Wegener's sarcoidosis, scleritis, pemphigoid, radial keratotomy, sickle cell anemia, sarcoid, pseudoxanthoma elasticum, Paget's disease, vein occlusion, artery occlusion, carotid obstructive disease, chronic uveitis/vitritis, Sjgren's syndrome, systemic lupus erythematosus, polyarteritis, rheumatoid arthritis, Eales' disease, Behcet's disease, infections causing a retinitis or choroiditis, presumed ocular histoplasmosis, Best's disease, myopia, optic

pits, Stargardt's disease, pars planitis, angiogenesis caused by contact lens overwear, trauma, corneal graft rejection.

29. (new) The method of claim 23, wherein the disease condition is an infection causing angiogenesis selected from: mycobacterial infections, Lyme disease, bartonellosis; toxoplasmosis, bacterial ulcers, fungal ulcers, herpes simplex infections, herpes zoster infections, syphilis, cat scratch disease, and protozoan infections.
30. (new) The method of claim 23, wherein the disease condition is an inflammatory disorder selected from: ulcerative colitis, Crohn's disease, psoriasis, sarcoidosis and rheumatoid arthritis.
31. (new) The method of claim 23, wherein the disease condition is a disease of excessive or abnormal stimulation of endothelial cells selected from: psoriasis; wound granulation and wound healing; intestinal adhesions; atherosclerosis; scleroderma, and hypertrophic scars (keloids).
32. (new) The method of claim 1 or 17, wherein the method further comprises conjointly administering one or more additional pharmaceutical agents in a therapeutically effective amount.
33. (new) The method of claim 32, wherein the additional agent is effective in treating an inflammatory disease or condition.
34. (new) The method of claim 32, wherein the additional agent is selected from anti-inflammatory, anti-oxidant, antibiotic, antiviral, antifungal, or antiparasitic agents.
35. (new) The method of claim 34, wherein the anti-inflammatory agent is selected from: glucocorticoids, non-steroidal anti-inflammatory drug, immunosuppressive agents, penicillamine, and hydroxychloroquine.
36. (new) The method of claim 35, wherein the anti-inflammatory agent is a glucocorticoid selected from: cortisone, hydrocortisone, prednisone,

prednisolone, fluorcortolone, triamcinolone, methylprednisolone, prednylidene, paramethasone, dexamethasone, betamethasone, beclomethasone, fluprednylidene, desoxymethasone, fluocinolone, flumethasone, diflucortolone, clocortolone, clobetasol and fluocortin butyl ester.

37. (new) The method of claim 35, wherein the anti-inflammatory agent is a non-steroidal anti-inflammatory drug is selected from: salicylic acid, alclofenac, ibufenac, ibuprofen, clindanac, fenclorac, ketoprofen, fenoprofen, indoprofen, fenclofenac, diclofenac, flurbiprofen, pirprofen, naproxen, benoxaprofen, carprofen and cicloprofen; piroxicam; mefenamic acid, flufenamic acid, tolafenamic acid and meclofenamic acid; fenamates miflumic acid, clonixin and flunixin; indomethacin, oxametacin, intrazol, acemetacin, cinmetacin, zomepirac, tolmetin, colpirac and tiaprofenic acid; idenylacetic acid of the sulindac type; benzadac; phenylbutazone; etodolac; and nabumetone.
38. (new) The method of claim 34, wherein the anti-inflammatory agent is an anti-oxidant agent selected from: superoxide dismutase (SOD), 21-aminosteroids/aminochromans, vitamin C and vitamin E.
39. (new) The method of claim 34, wherein the anti-inflammatory agent is an antibiotic agent selected from: tetracycline antibiotics; aminoglycosides; macrolides; clavam, penem and carbapenem type β -lactam antibiotics; 6 β -acylaminopenicillanic acid-derivatives, 7 β -acylamocephalosporanic acid-derivatives, and 7 β -acylamocephalosporanic acid derivatives that are modified in the 3-position.
40. (new) The method of claim 34, wherein the anti-inflammatory agent is an antiviral agent is selected from: zidovudine, zalcitabine, dicanosine, protease inhibitors of retroviruses, and integrase inhibitors of retroviruses.
41. (new) The method of claim 32, wherein the additional therapeutic agent is an anti-tumor agent.

42. (new) The method of claim 41, wherein the anti-tumor agent is selected from: anti-metabolites/anti-cancer agents; folate antagonists and related inhibitors; antiproliferative/antimitotic agents; microtubule disruptors; DNA damaging agents; antibiotics; enzymes; antiplatelet agents; antiproliferative/antimitotic alkylating agents; antimetabolites; platinum coordination complexes; hormones, hormone analogs and aromatase inhibitors; anticoagulants; fibrinolytic agents; antimigratory agents; antisecretory agents (breveldin); immunosuppressives; anti-angiogenic compounds; growth factor inhibitors; angiotensin receptor blocker; nitric oxide donors; anti-sense oligonucleotides; antibodies specific to neoplastic cells; cell cycle inhibitors and differentiation inducers; mTOR inhibitors, topoisomerase inhibitors; corticosteroids; growth factor signal transduction kinase inhibitors; mitochondrial dysfunction inducers and caspase activators; and chromatin disruptors.
43. (new) The method of claim 41, wherein the anti-tumor agent is selected from: aminoglutethimide, amsacrine, anastrozole, asparaginase, bcg, bicalutamide, bleomycin, buserelin, busulfan, camptothecin, capecitabine, carboplatin, carmustine, chlorambucil, cisplatin, cladribine, clodronate, colchicine, cyclophosphamide, cyproterone, cytarabine, dacarbazine, dactinomycin, daunorubicin, dienestrol, diethylstilbestrol, docetaxel, doxorubicin, epirubicin, estradiol, estramustine, etoposide, exemestane, filgrastim, fludarabine, fludrocortisone, fluorouracil, fluoxymesterone, flutamide, gemcitabine, genistein, goserelin, hydroxyurea, idarubicin, ifosfamide, imatinib, interferon, irinotecan, letrozole, leucovorin, leuprolide, levamisole, lomustine, mechlorethamine, medroxyprogesterone, megestrol, melphalan, mercaptopurine, mesna, methotrexate, mitomycin, mitotane, mitoxantrone, nilutamide, nocodazole, octreotide, oxaliplatin, paclitaxel, pamidronate, pentostatin, plicamycin, porfimer, procarbazine, raltitrexed, rituximab, streptozocin, suramin, tamoxifen, temozolomide, teniposide, testosterone, thioguanine,

thiotepa, titanocene dichloride, topotecan, trastuzumab, tretinoin, vinblastine, vincristine, vindesine, and vinorelbine.

44. (new) The method of claim 1, wherein the compound is administered by implanting a medical device coated with the compound.

45. (new) The method of claim 44, wherein the medical device is a stent.

46. (new) A method for contraception in a mammal, wherein the method comprises:

administering to said mammal a compound which binds to a galectin, said compound comprising a polymeric backbone which is a partially demethoxylated polygalacturonic acid interrupted with rhamnose residues;

in an amount sufficient to block ovulation or to prevent implantation by a blastula,

thereby preventing conception by the mammal.